

ORIGINAL RESEARCH

Clinical profile among patients with nasal polyp

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ABSTRACT:

Background: To study the clinical features of nasal polyp.

Materials & methods: A total of 20 subjects were enrolled. Patients presenting with clinical features of nasal polyp, of all age groups and both sexes, and also recurrence cases were included. The two types of polyps were included as ethmoidal and antrochoanal polyps. They were further divided as unilateral or bilateral. Data was collected and results were evaluated using SPSS software.

Results: A total of 20 subjects were enrolled. The most common symptom was nasal obstruction seen in 18 subjects (90%), followed by sneezing present in 11 subjects (55%) followed by headache in 10 subjects (50%) and nasal discharge in 8 (40%). Epistaxis was the least seen in 1 patient (5%).

Conclusion: Antrochoanal polyps had 100% unilateral presentation with predominance of right side (60%).

Keywords: nasal polyps, ethmoidal, nasal obstruction.

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Introduction

Nasal polyps are mucosal lesions of the nasal or paranasal sinuses that can result from a response to inflammatory or infectious stimuli. They appear as smooth, round, semi-translucent masses that are most commonly found in the middle meatus and ethmoid sinuses and affect 1% to 4% of the population. Males are affected more than females and adults more than children. If it happens in childhood, mucociliary and immunodeficiency diseases must be ruled out, for example, patients with cystic fibrosis have a prevalence of nasal polyposis between 6% and 48%.¹ Patients with nasal polyposis may present clinically with complaints of nasal obstruction, congestion, hyposmia, rhinorrhea, epistaxis, postnasal drip, headaches, and snoring. Although nasal polyps more commonly appear bilaterally, they can also present unilaterally. In unilateral nasal masses, benign or malignant pathologies must be considered and distinguished by nasal endoscopy, CT scan, and biopsy.¹

Polyposis is an end-stage manifestation of uncontrolled allergy, and management of extant polyposis is only the beginning of the process. Once the polyps have been addressed, local and systemic therapy aimed at controlling the underlying allergic etiology must be undertaken, or else they can rapidly recur.² Presentation ranges from asymptomatic persons to patients with significant nasal obstruction, nasal and facial congestion, anosmia, aguesia, and rhinorrhea. These symptoms decrease the quality of life (QOL) of the affected individuals.^{3,4} The histopathology of nasal polyps depends mainly on the endotype classification. Polyps in patients with CRSwNP tend to have higher tissue eosinophilia, plasma cells, macrophages, edema, IL-5, and IgE. In contrast, in patients without nasal polyps, the collected specimens do not share this abundance of Th2 inflammatory markers. In the same cohort of patients, those who suffered from aspirin sensitivity (AERD) also had a generous amount of

eosinophils and mast cells.⁵ Another study confirmed increased tissue eosinophilia in patients with CRSwNP and patients with AERD; however, there was no statistically significant relationship between their asthma and tissue eosinophilia. Charcot-Leyden crystals can be found in nasal polyps specimens. The authors describe that the presence of these crystals typically correlates with worse endoscopic findings.⁶ Hence, this study was conducted to study the clinical features of nasal polyp.

Materials & methods

A total of 20 subjects were enrolled. Patients presenting with clinical features of nasal polyp, of all age groups and both sexes, and also recurrence cases were included. The clinical profile included nasal obstruction, nasal discharge, headache, sneezing etc. Clinical and histopathological examination was done. The histopathological slides were reviewed. The two types of polyps were included as ethmoidal and antrochoanal polyps. They were further divided as unilateral or bilateral. Data was collected and results were evaluated using SPSS software.

Results

A total of 20 subjects were enrolled. The most common symptom was nasal obstruction seen in 18 subjects (90%), followed by sneezing present in 11 subjects (55%) followed by headache in 10 subjects (50%) and nasal discharge in 8 (40%). Epistaxis was the least seen in 1 patient (5%). According to the clinical findings 75% of ethmoidal polyps presented bilaterally, whereas antrochoanal polyps had 100% unilateral presentation with predominance of right side (60%). 100% of ethmoidal polyps were multiple in number, while antrochoanal polyps presented as single polypoidal mass in all cases (100%).

Table 1: symptoms of nasal polyps

Symptoms	Number of subjects	Percentage
Nasal obstruction	18	90
Headache	10	50
Sneezing	11	55
Nasal discharge	8	40
Epistaxis	1	5

Table 2: clinical findings in nasal polyps

Type	Laterality			Numbers	
	Right	Left	Bilateral	Single	Multiple
Ethmoidal polyp	0	2 (25%)	6 (75%)	0	8 (100%)
Antrochoanal polyp	6 (60%)	4 (40%)	0	10 (100%)	0

Discussion

The etiology of nasal polyps has been the subject of research for many years. Elevated levels of histamine and IgE found around polyps, and mast cells and eosinophilia found within polyps provide evidence suggesting that inflammation is a major factor in polyp formation.⁷ Previous studies have also revealed a relationship between nasal polyposis, aspirin intolerance, and allergic rhinitis and asthma.^{8,9} The prevalence of nasal polyposis is higher in subjects with asthma than in non-asthmatics and 16.5% of asthmatic patients over 40 years of age have been shown to have nasal polyps.¹⁰ Hence, this study was conducted to study the clinical features of nasal polyp.

In the present study, a total of 20 subjects were enrolled. The most common symptom was nasal obstruction seen in 18 subjects (90%), followed by sneezing present in 11 subjects (55%) followed by headache in 10 subjects (50%) and nasal discharge in 8 (40%). Epistaxis was the least seen in 1 patient (5%). A study by Jyoti Tugave et al, examined that the most common benign mass in the nose is the nasal polyp. Nasal polyps are a medically recognized condition since the time of ancient Egyptians. Patients treated between study periods were subjected to a comprehensive history and clinical evaluation and histopathological examination as per the proforma designed. The most

common symptom was nasal obstruction found in 28 patients (93.3%), sneezing was the next complaint present in 16 patients (53.33%) followed by headache in 15 patients (50%) and nasal discharge in 14 (46.6%), smell disturbances in 10 (33.3%), rhinolalia clausa in 7 patients (23.33%) of antrochoanal polyp, post natal drip and epistaxis in 2 patients each (6.6%). According to the clinical findings, 80% of ethmoidal polyps presented bilaterally, whereas antrochoanal polyps had 100% unilateral presentation with predominance of right side (57%).¹¹

In the present study, according to the clinical findings, 75% of ethmoidal polyps presented bilaterally, whereas antrochoanal polyps had 100% unilateral presentation with predominance of right side (60%). 100% of ethmoidal polyps were multiple in number, while antrochoanal polyps presented as single polypoidal mass in all cases (100%). Another study by Raciborski F et al, analysed the reported prevalence of nasal polyps in the Polish population, including demographics and co-morbidities and estimated the costs of outpatient and hospital (inpatient) services financed by the National Health Fund. In 2018, the recorded prevalence of nasal polyps in Poland was 52.0/10,000 population (0.52%), amounting to 64.6/10,000 (0.65%) in men and 40.2/10,000 (0.40) in women. Nasal polyps were much more frequent in patients aged 55–59 (98.1/10000) and 75–79 years (98.7/10,000). Among men, the highest prevalence was found in the 75–79 age group (164.3/10,000 population), and among women in the 55–59 age group (75.1/10,000). In 2018, the Polish NHF spent PLN 17.2 million (equivalent to EUR 4.0 million/USD 4.7 million) on health services related to the diagnosis of nasal polyps. Hospital services accounted for 77.4% of the total cost. Nasal polyps are more than one and a half times as prevalent in men than in women. The recorded prevalence of nasal polyps increases with age, with the rates peaking in those between 75 and 79 years old, and is more often in urban than rural areas.¹² Nasal polyposis is a condition that more commonly affects middle-aged men.¹³ In a Nigerian district hospital, Chukuezi reported that the maximum presentation rate was between 31 and 40 years old.¹⁴ In France, the estimated incidence of nasal polyposis increased with age, reaching a peak in the 50 to 59 year age group.¹⁵ In another study in France, the mean age of patients was 49.4 ± 17.6 .¹⁶ In the only epidemiologic study of nasal polyposis in Iran that we could find, Hashemian and colleagues reported that the incidence of polyposis in 192 patients with chronic rhinosinusitis was 40%, while the sex distribution of the patients with polyposis was 60% males and 40% females and 43% of the patients also had a history of allergy.¹⁷

Physical examination should include an anterior rhinoscopy, where polyps and other neoplasms can be readily visible at times. Nasal polyposis is a clinical diagnosis based on anterior rhinoscopy or a nasal endoscopic examination. Imaging studies, such as computed tomography of the paranasal sinuses (PNS CT scan), are sometimes necessary to assess the severity of the disease, and can aid in surgical planning, if indicated. The presence of nasal polyps with two cardinal symptoms confirms the diagnosis of chronic rhinosinusitis with nasal polyposis. Presentation ranges from asymptomatic persons to patients with severely affected QOL. The latter may require the services of an otolaryngologist, as surgery may be required to begin their definitive treatment.^{3,4,18}

Conclusion

Antrochoanal polyps had 100% unilateral presentation with predominance of right side (60%).

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